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(54) Title: METAL-SUPPORTED POROUS CARBON FILM, FUEL CELL ELECTRODE AND FUEL CELL EMPLOYING THE ELECTRODE

(57) Abstract: A metal-supported porous carbon film wherein metal fine particles with a mean particle diameter of 0.7-20 nm are dispersed and supported on pore surface walls, fuel cell electrodes employing the metal-supported porous carbon film, a membrane-electrode assembly comprising the fuel cell electrodes bonded on both sides of a polymer electrolyte film, and a fuel cell comprising the fuel cell electrode as a constituent element. The support structure is such that metal fine particles having a controlled particle size are uniformly supported to allow effective utilization of the metal-based catalyst, and the fabrication steps are simple.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H01M4/88 H01M4/92

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X, L	<p>WO 03/092093 A (UBE INDUSTRIES, LTD; OHYA, SHYUSEI; TAKAGI, JUN) 6 November 2003 (2003-11-06) page 2, line 29 – page 3, line 11 page 5, line 3 – line 13 page 13, line 37 – page 14, line 16 page 15, line 11 – line 16 claims 1-12</p> <p>-----</p>	1-9
X	<p>EP 1 244 165 A (UBE INDUSTRIES, LTD) 25 September 2002 (2002-09-25) column 2, paragraph 8 – column 3, paragraph 13 column 4, paragraph 23 column 5, paragraph 33 – paragraph 36 column 8, paragraph 40 – paragraph 42 column 9, paragraph 52 – paragraph 53 column 11, paragraph 64 – paragraph 67</p> <p>-----</p> <p>-/-</p>	1-9

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